

EXHIBIT 51



Kia Sorento - XMA



Glass Panel

10th May 2014

**Kia XMA (Sorento) - Glass Breakage****Affected Part: Roof Panel P/N: (XMA –)****One-Pager #****Problem & Root Cause / Ursache****Actions / Maßnahmen****Evaluation / Bewertung**

Problem Description: Kia XMA Moon Roof Glass breakage. Field Complaints about glass breakage (explosion) whilst driving. Flying parts (frame) also reported.

- Production span: Oct 2009 to Jan 2013
- Total shipped volume (potential exposure) = 73200 units
- Total warranty claims to-date = 32

Latest Vehicle Incident Analysis: (by B.Hepner & M.Rios)

- 7th May 2014 – Vehicle reviewed, but had been repaired weeks before. Evidence of
- 8th May 2014 – Vehicle indicated severe external impact to Front Panel. Flying parts also reported – analysis indicates that Front Cross Car Frame fell into cabin following glass break & separation.

Specification:

TBD – (Awaiting information from Seok Chun Lee)

Problem Risk: (Carry Over Part or other Ford Plants potential affected (Y/N)): N

Potential Root Causes:

- Vehicle Installation
- Glass capability (Supplier – Guardian Glass)
- PU Gluing path process variation
- Glass Frame capability

M1/A1 – Detection:

- Unable to detect during normal durability testing (Module and Vehicle)

M2/A2 - Containment:

- At Lexington:- No containment – EOP Feb 2013

M3/A3 – Root Cause Analysis:**Field Return Analysis:**

- 12th Nov 2012 Vehicle (was repaired) – Remaining broken glass and frame being returned for detailed analysis (Stage 1 / Stage 2 analysis where possible)
- 26th July 2012 Vehicle (unrepaired) - Remaining broken glass and frame being returned for detailed analysis (Stage 1 / Stage 2 analysis where possible)

Process Investigation:

- Analysis of incoming Glass measurement data in Lexington - Feedback CW21
- Analysis of incoming Frame data in Lexington – Feedback CW21
- Analysis of Encapsulated Glass &/or Roof Module measurement – Feedback CW21
- Analysis of Process Change History – PU bead path (ref flying parts) – Feedback CW21
- Analysis of Product & Process Audit results history from Lexington production – Feedback CW21

Supplier Part Investigation

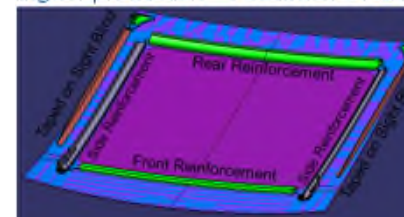
- Product Capability Glass
- Product Capability Frame

M4/A4 – Potential Permanent Solution:**Production:-**

- None – Lexington EOP Feb 2013.

Field Warranty:-

- Potential Film over the outside of glass to reduce glass separation occurrence on impact glass breakage – Investigation feedback CW24
- Investigate possible reduction of flying parts following any Glass impact breakage & separation – Investigation feedback CW21

**Effectiveness / Wirksamkeit:**

Nov 13			
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Solving of issue started/

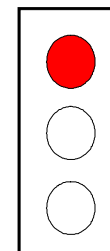
Clean Point

Days producing good parts

Issue eliminated

0827

One Pager reviewed with customer (Y/N): N


 Revision date:
May 9, 2014

Page

2



Kia XMA (Sorento) - Glass Breakage – History



Kia XMA glass issue

Sunroof type: Panoramic roof with 2 glass panels: Front (moving) and Rear (Fixed)

Problem area: Front glass (~90%) and Rear glass (~10%)

Issue Description:

1. Glass shattering/exploding (29 total: 26 – front and 3- rear) : NHTSA looking into it.
2. Glass separation – adhesion problem (partial in some areas causing rattling while driving) : 3 total claims – all front glass panels : NHTSA not looking in to it.

History (from online website):

Hyundai Veloster recalled for shattering sunroofs

The problem

As in the earlier recall, the issue is that panoramic sunroofs may have been weakened during factory installation into the vehicles.

Weakened sunroofs can potentially crack and injure the driver and passengers with shards of glass. At least five people have received minor injuries after Veloster (vehicle produced in Korea and also sold in USA) sunroofs shattered, although no vehicles crashed as a result.

The NHTSA launched an investigation into the problem last October after the agency received 11 owner complaints of shattering panoramic sunroofs.

What Hyundai will do

Hyundai will notify owners and dealers will inspect the sunroof vehicle for integrity, replacing the glass assembly, as necessary, at no charge. The Hyundai safety recall campaign, #108, is expected to begin in March 2013.

Recall vehicles produced between Nov 1, 2011 to Apr 17, 2012.

Note: Guardian supplies float glass to Sejin which supplies glass panels to Webasto Donghee (does final glass panel assembly).

NHTSA started looking in to the following vehicles because they were all built by the same automaker:

Kia XMA Facelift (Sorento), Kia SL (Kia Sportage built in Korea) and Kia TF (Optima) vehicles had similar issues in the field in USA and are being looked in to by NHTSA.

Kia XMA Facelift = glass supplied by Korea Security, Panoramic roof built by Webasto Donghee and shipped to USA.

Kia SL = glass supplied by Korea Security, Panoramic roof built by Webasto Donghee.

Kia TF = glass supplied by Korea Auto Glass, Panoramic roof built by Webasto Donghee and shipped to USA.

Kia XMA = glass supplied by Guardian and panoramic sunroof built by Webasto Lexington and vehicle produced in USA. *Kia XMA program is out-of-production as of Jan 2013.*

Current Status and Potential Exposure:

Production span: Oct 2009 to Jan 2013

Total shipped volume (potential exposure) = 73200 units

Total warranty claims to-date = 32

Problem production date range from warranty data: SOP to Jun 2012

Current warranty IPM (Incidents per million) = 437

Supplier Warranty Liability Period = 5 years/60,000 miles

Current Average age of vehicle in the field ~= 20 months

Root Cause Analysis status:

Based on Kia's documents:

Total claims are 50 out of which 6 units had external impact, 8 units completely shattered – cause could not be determined, 10 of the incidents were reported to NHTSA as a result of the Vehicle Owner Questionnaire (VOQ). Kia did not provide information regarding the remaining units.

Current Status from WRS AM team:

Webasto submitted FMVSS 205 test results to Kia and the results met the specification. Additionally we have conducted and passed glass rigidity tests per Kia specification in the presence of Kia representative in our test lab.

Kia also requested documents for glass checking fixtures, frame checking fixtures, and life-cycle durability test reports. Webasto has provided various requested reports.

Webasto has been supporting joint dealer trips for these issues along with Kia.

We have not had any call from Kia about dealer visits after April 2013.



Kia XMA (Sorento) - Glass Breakage – Related Articles

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By Mark Harvey, Lisa Mathews, CBC News | Posted: Feb 26, 2014 8:00 AM MT | Last Updated: Feb 26, 2014 7:24 PM MT



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Sunroof 'just exploded' 2:00

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The sunroof glass in her 2013 Kia Sorento shattered with such force she could have lost control and crashed, Stevens said.

The console and the back seat were showered with shards of glass.

"It was extremely scary. If there were any passengers in the back seat they would have definitely been injured, glass in the eye or what-not."

She had the vehicle towed to the nearest Kia dealer, Sherwood Kia in Sherwood Park, Alta.

Kia Canada replaced the sunroof under warranty at no charge to Stevens.

Later, Stevens found out that her case was just one of many to affect Kia Sorentos and other models.

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Lorna V killer be

90-year grandso



5 things

Another Day, Another Kia Sorento Sunroof Implosion

Car WTFs Feb 28, 2014



Kia Sorento Sunroof Implosions

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Stevens was on her way to work when the sunroof of her Kia Sorento SUV violently imploded, raining glass into the cabin and exposing her to the freezing hellscape that is Canadian winter.

This might seem like a freak accident due to extreme weather or other rare circumstances, but Stevens isn't the first Sorento owner to start her day with the sweet sounds of an exploding sunroof. The National Highway Traffic Safety Administration (NHTSA), has received at least 15 reported complaints of imploding sunroofs in 2011-2013 Kia Sorentos, most occurring while the vehicle was in motion. Due to those complaints, the NHTSA opened an ongoing investigation of 64,000 Sorentos.

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A similar situation occurred in California last year, as Krystal Miller had the sunroof in her new 2013 Kia Sorento explode with her one-year-old daughter in the back seat. Miller was shaken and suffered minor cuts, but her local Kia dealer wouldn't cover the cost of the implosion, stating there were several impact points that may have caused the implosion, despite it being less than four weeks old.



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[Reply](#)

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[Reply](#)



Sparkles

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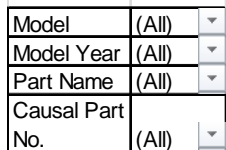
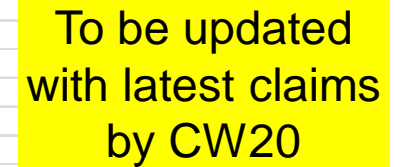
2 months ago · 0 likes







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Like Share



Trend

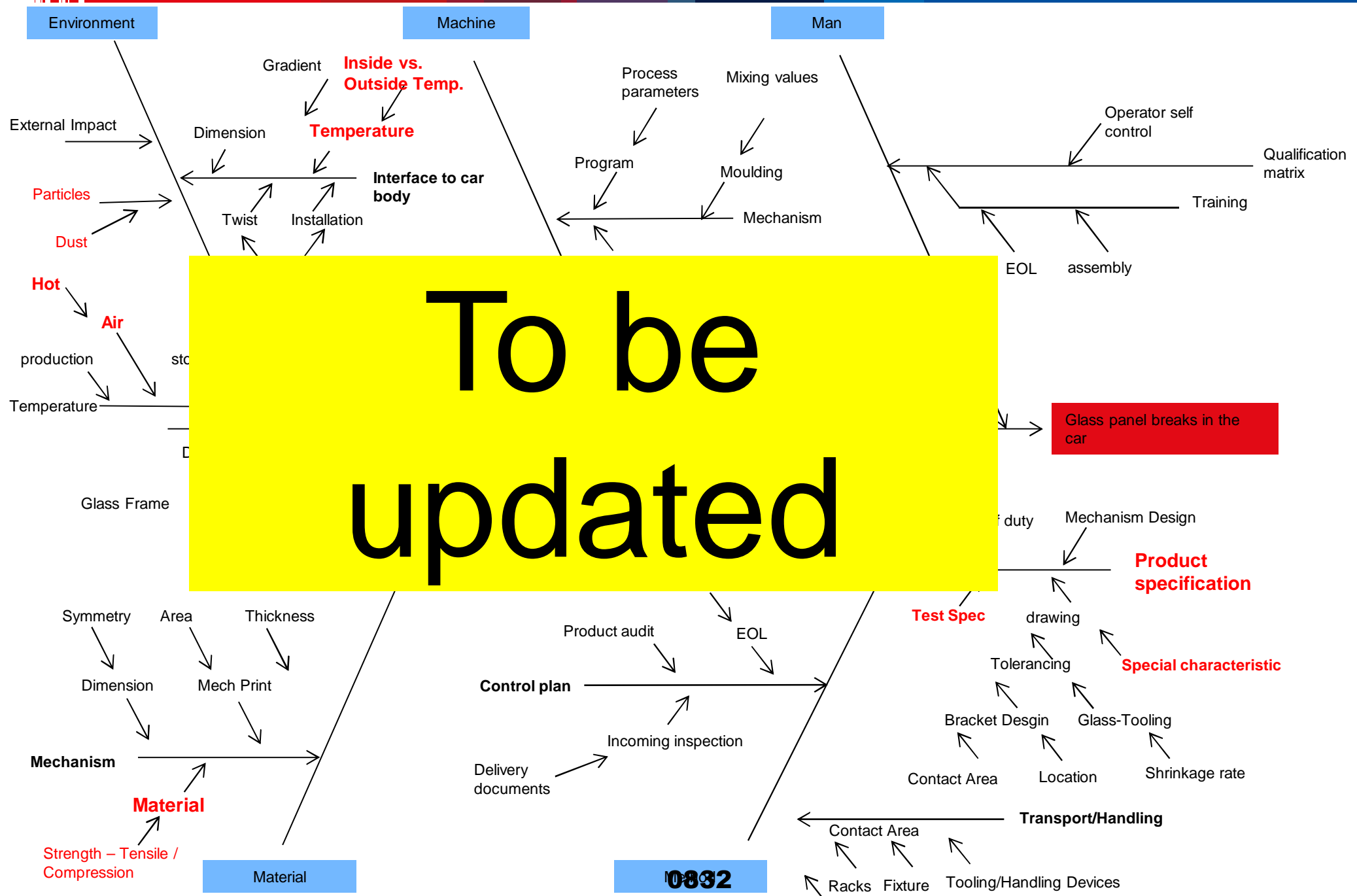


Count of Full Vin	Production																		Grand Total
	Years 	Date 																	
	 2009	 2010								 2011				 2012					
	Dec	Jan	Feb	Mar	Apr	Jul	Aug	Oct	Dec	Jan	Feb	May	Sep	Oct	Dec	Feb	Jun		
Total	1	1	2	2	4	1	3	1	3	2	1	3	1	1	1	1	1	29	

[illegible]



Kia XMA (Sorento) - Glass Breakage



Kia Sorento - XMA



Field Incident Analysis Report

9th May 2014

Field Incident Analysis - Vehicle Review 7th May 2014 @ KCI in Mississauga CA



Vehicle Tag



Roof System Tag



Moving Glass
already
replaced by
Dealer



Field Incident Analysis - Vehicle Review 7th May 2014 @ KCI in Mississauga CA



Items sent to KCI from Sandbury Dealer:

- Front cross car reinforcement – bonded to glass
- 2 side sight shields – taped to bottom of glass on outboard edges
- 2 side frame pieces – main track/mechanism attachment bonded to glass
- 2 rear corner brackets – idler link attachment bonded to glass

NOTE: Rear cross bar not present

Found under 2nd row seats:

- Broken tempered glass pieces



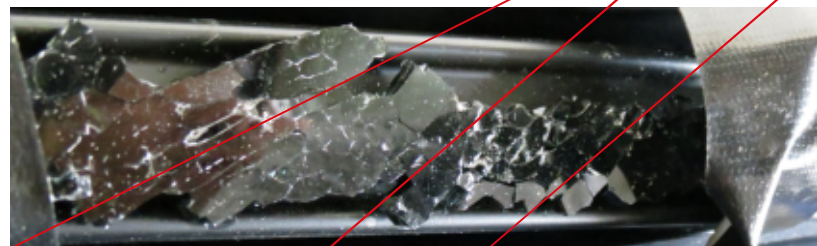
Field Incident Analysis - Vehicle Review 7th May 2014 @ KCI in Mississauga CA



Suspected impact point is at the front of glass near the middle



Middle of bar



Left Side



Right side

Field Incident Analysis - Vehicle Review 7th May 2014 @ KCI in Mississauga CA



Approximate location of Front Cross Car Reinforcement after glass broke (per a picture viewed on George Bousioutis' computer at KCI).

The glass was closed with the sunshade open. The vehicle was traveling ~100Km/Hr and there were heavy wind gusts.

From Web Search:

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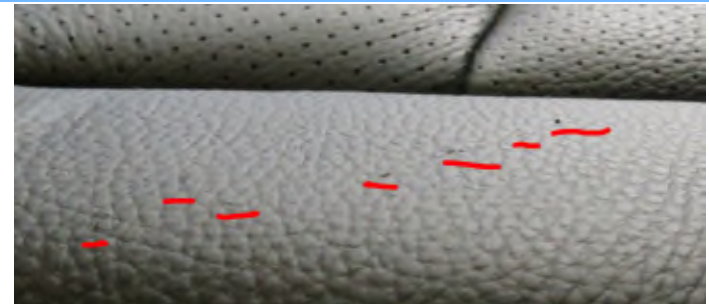
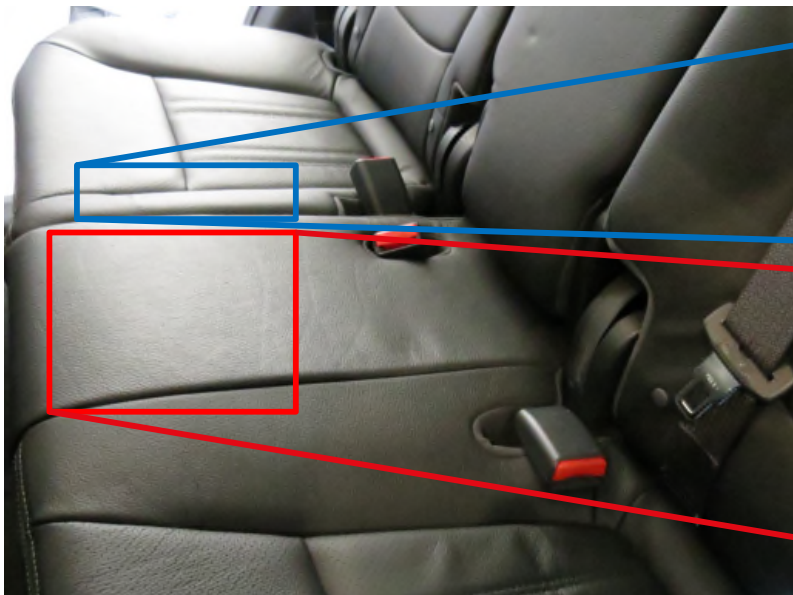
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Field Incident Analysis - Vehicle Review 7th May 2014 @ KCI in Mississauga CA

Possible Front Cross Car Reinforcement impact location



Possible Front Cross Car Reinforcement contact with seat

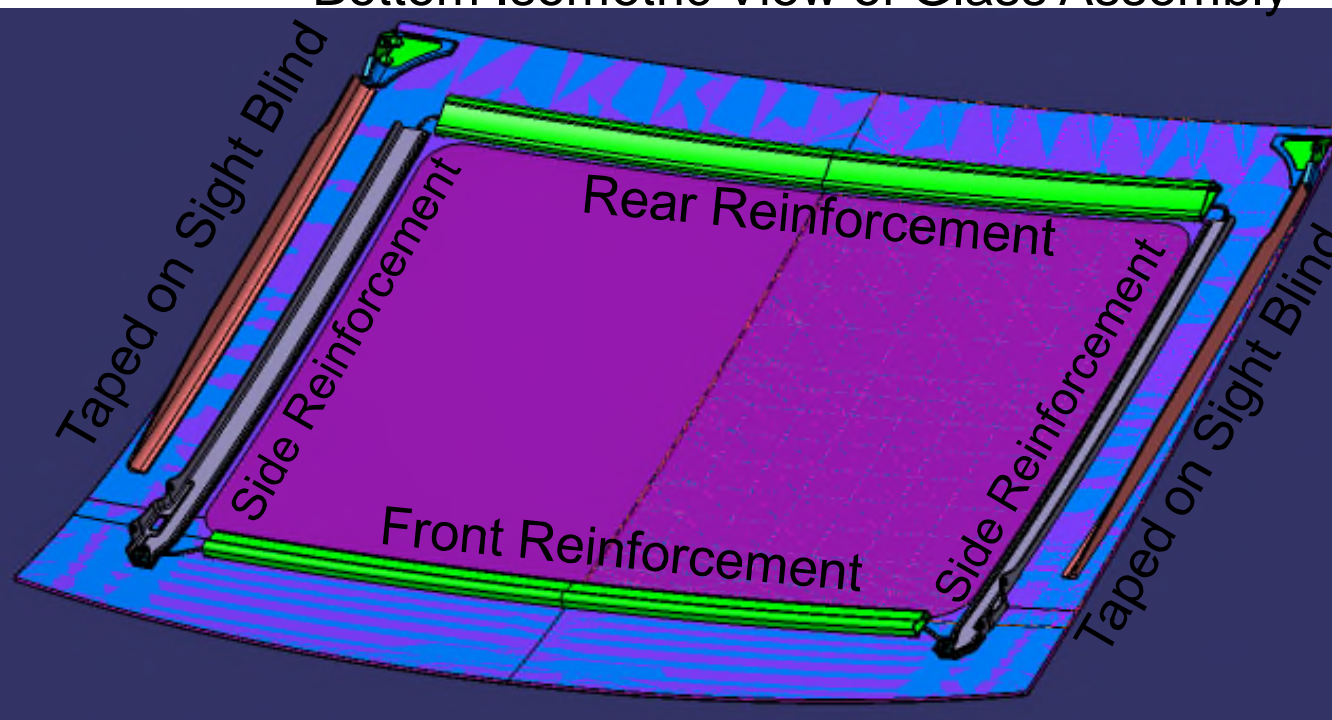


Field Incident Analysis -

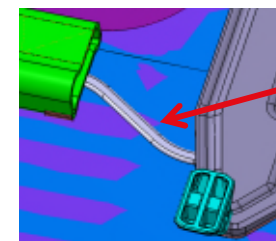
Vehicle Review 7th May 2014 @ KCI in Mississauga CA

Possible Cause of Injury is from the front Cross Car reinforcement not being tied to the glass attachment points and therefore being free to fall into the vehicle interior (adhesive bead not present on all 4 corners). The Rear Cross Car Reinforcement was missing. Another Risk: the outer sight blinds are not directly, or indirectly attached to the glass mounts. They are taped to the bottom of glass but can move freely once the glass has shattered.

Bottom Isometric View of Glass Assembly



Print requires front and rear reinforcements to be tied to the side reinforcements with an adhesive bead but was not present on this vehicle. Rear reinforcement wasn't recovered (missing) and front reinforcement had the adhesive bead stop short of the end of the part.



Missing
Adhesive
Bead



Kia Sorento - XMA



Field Incident Analysis Report

9th May 2014

Field Incident Analysis -

Vehicle Review 8th May 2014 @ Kia Dealer near Vancouver



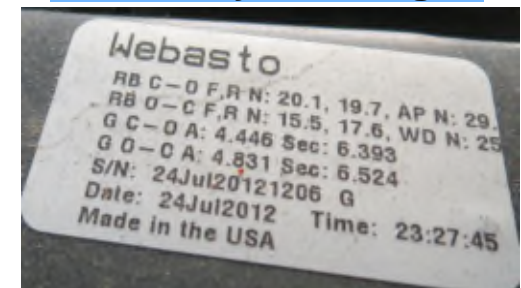
Condition of vehicle at dealer



Vehicle Tag



Roof System Tag



Front Cross Car Reinforcement ended up in cargo following glass breakage



Unofficial background information: Male driver and his young daughter were traveling around 7PM in an area where there were no other vehicles. He heard a loud explosion and pulled to the side of the road. His daughter was very upset but no injuries were reported. The dealer's assistant service manager said it occurred next to a golf course/driving range. The impact seems consistent with golf ball sized object..

Field Incident Analysis -

Vehicle Review 8th May 2014 @ Kia Dealer near Vancouver

Taped on Sight Blind-loose

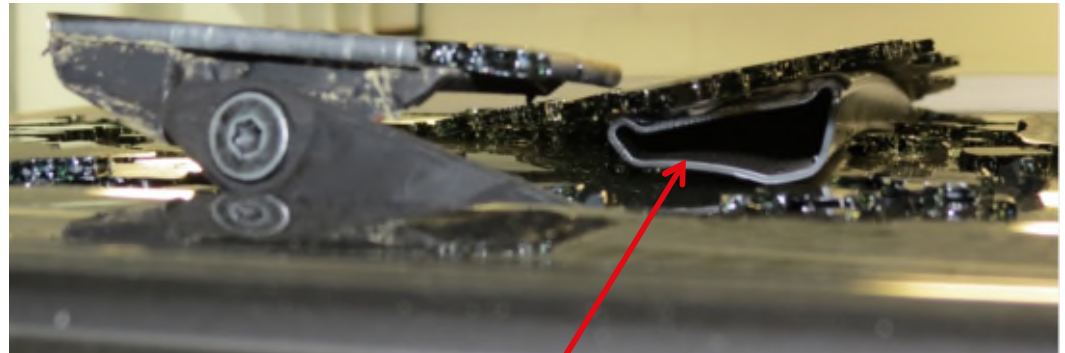
Side Reinforcement



Taped on Sight Blind-loose and rotated

Side Reinforcement

Drivers Side

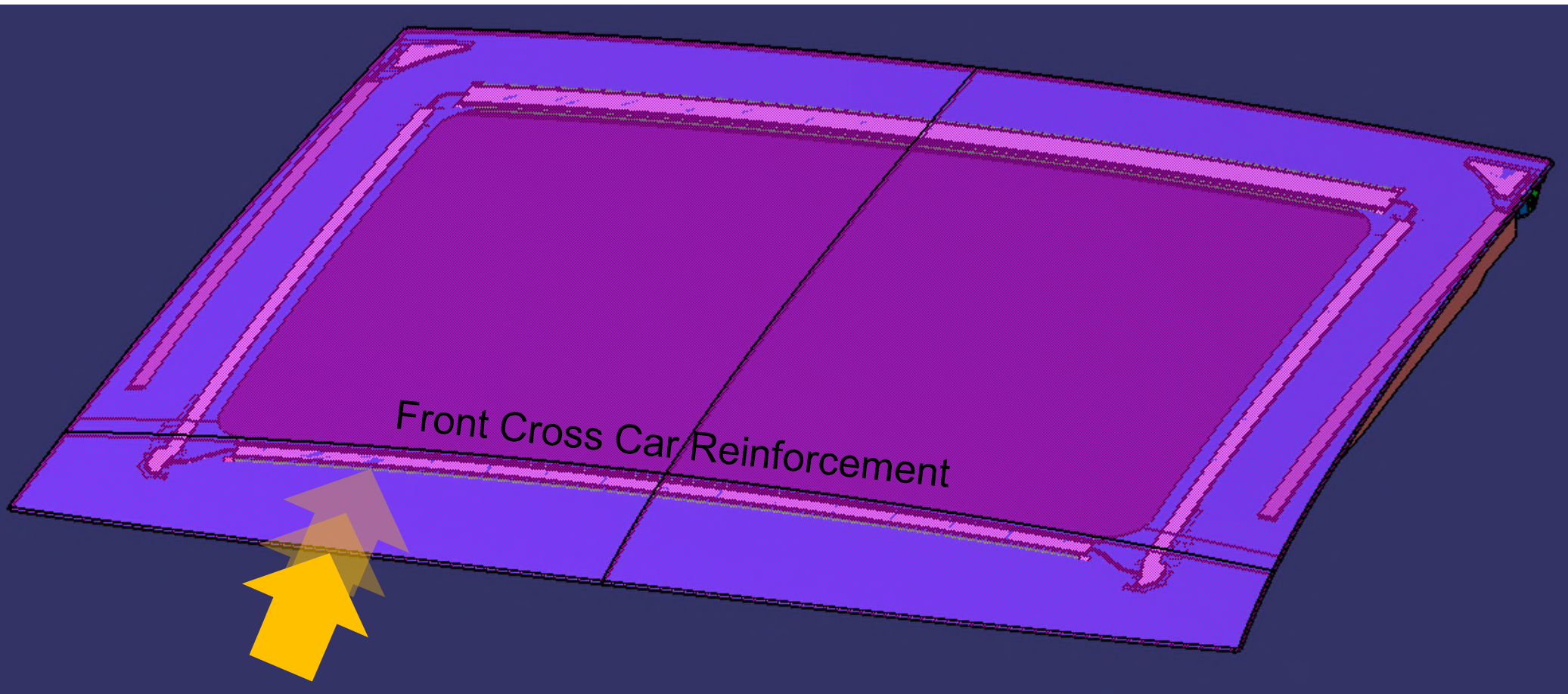


Rear Reinforcement stayed on the top of the rear fixed glass – separated from glass mounts

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Vehicle Review 5-8-2014 @ Kia Dealer Near Vancouver



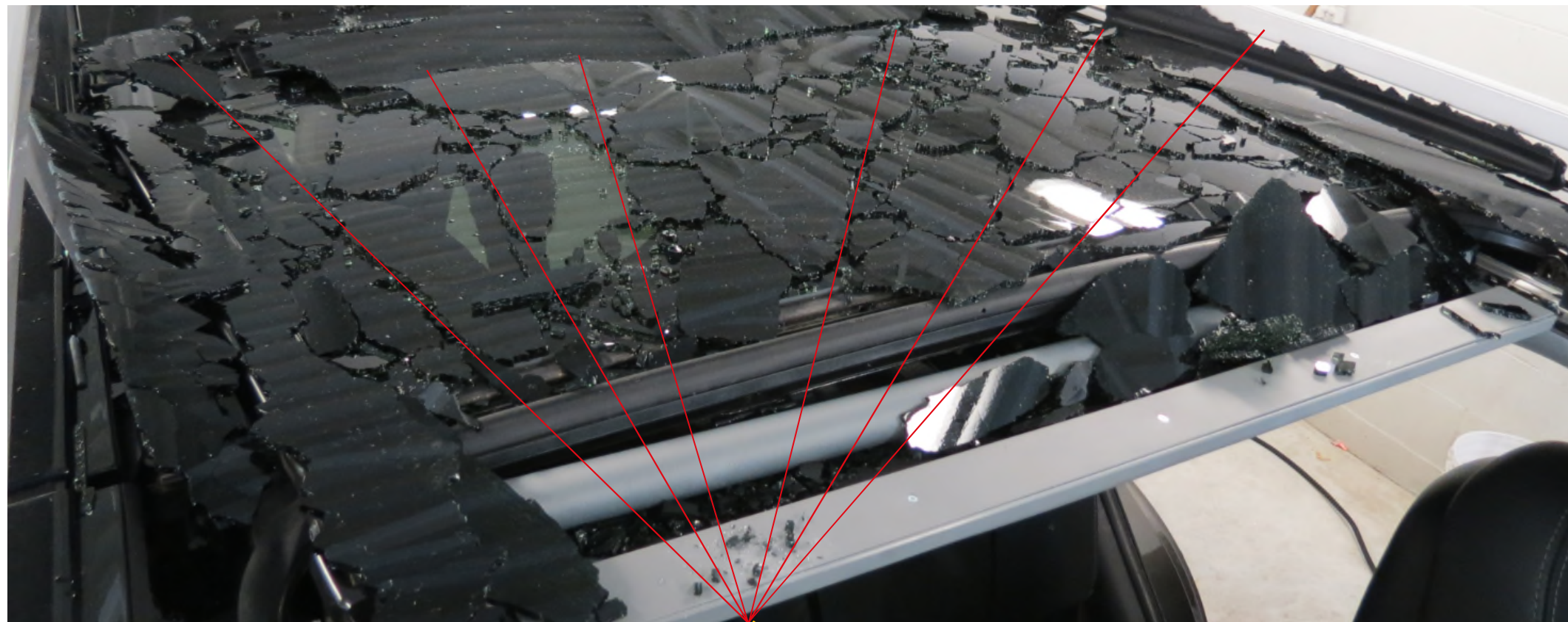
Suspected point of impact with golf ball
Sized object



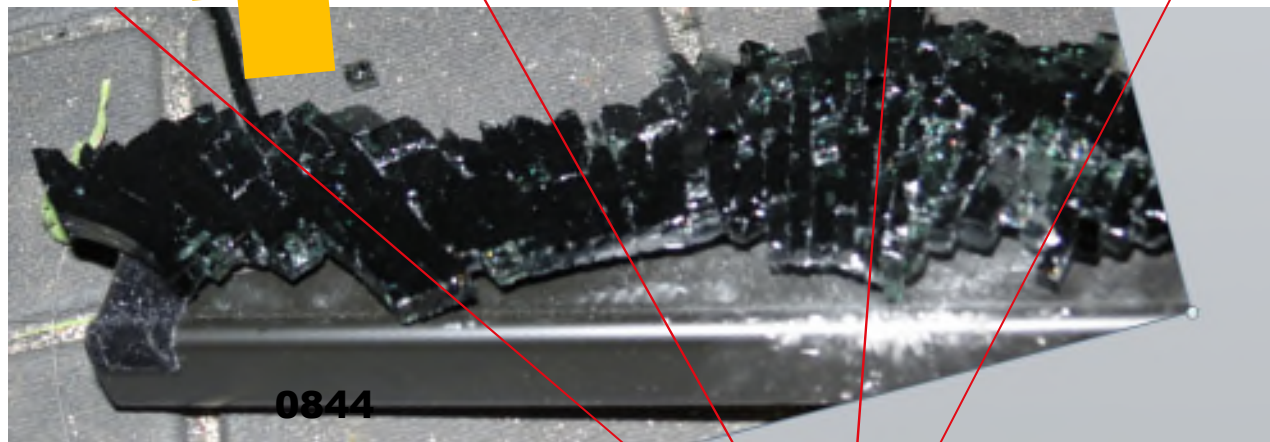
Front Cross Car Reinforcement



Vehicle Review 5-8-2014 @ Kia Dealer Near Vancouver



Suspected point of impact
with golf ball sized object.
Break pattern supports as
shown.





Vehicle Review 5-8-2014 @ Kia Dealer Near Vancouver

Suspected travel path of Front Cross Car Reinforcement





Vehicle Review 5-8-2014 @ Kia Dealer Near Vancouver

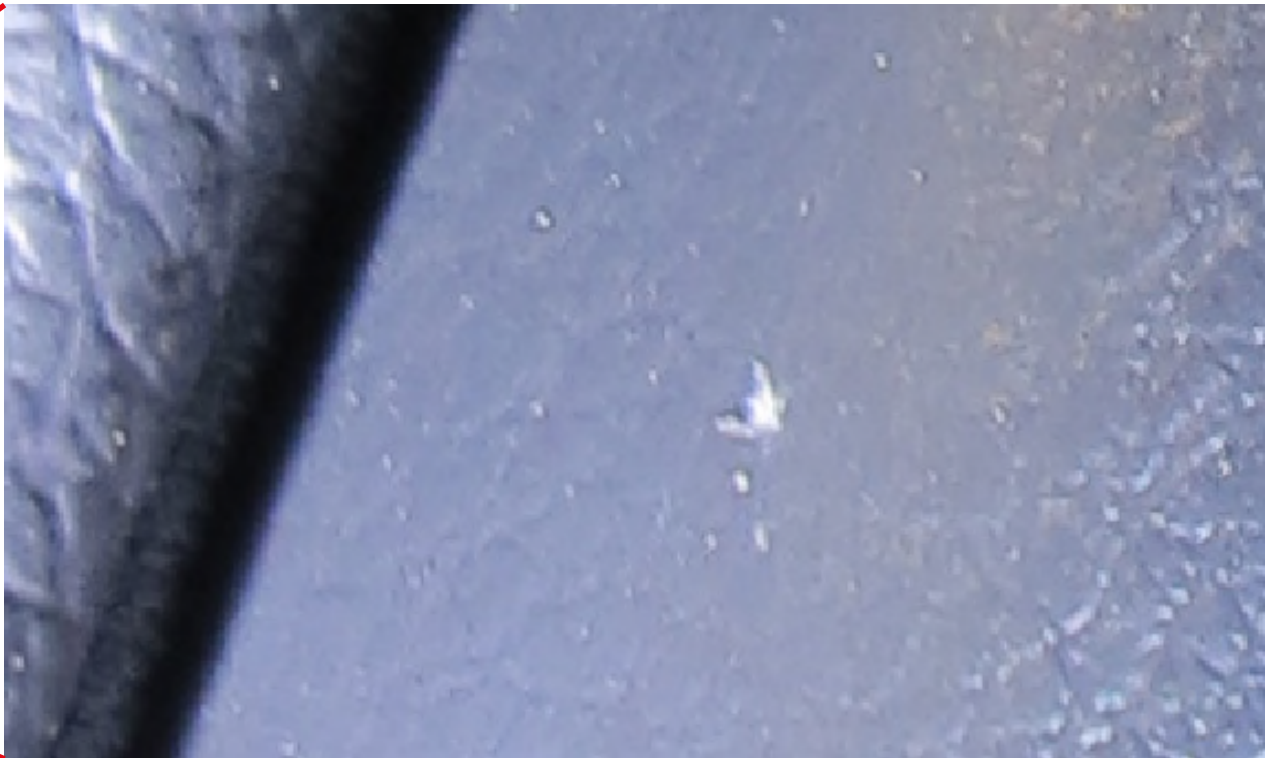
Suspected travel path of Front Cross Car Reinforcement





Vehicle Review 5-8-2014 @ Kia Dealer Near Vancouver

Suspected travel path of Front Cross Car Reinforcement



Reinforcement falls after impact and contacts fully upward headrest. The reinforcement's velocity from the impact and 60km/hr vehicle speed cause the driver's side of the reinforcement to twist rearward. The reinforcement ends up in the cargo area 180 degrees from it's installed orientation.



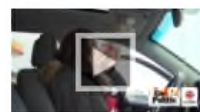
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2 months ago · 0 likes

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Thank you for your attention!